

1. SUMMARY

1.1 Country submitting the proposal	Country name:	The Bahamas	
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1.2 Date of initial submission	31 March 2020		
1.3 Last date of resubmission	15 October 2020	Version number	V.3
1.4 Which institution will implement the Readiness and Preparatory Support project?	<input type="checkbox"/> National designated authority <input type="checkbox"/> Accredited entity <input checked="" type="checkbox"/> Delivery partner		
	Name of institution:	Inter-American Institute for Cooperation on Agriculture	
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1.5 Title of the Readiness support proposal	Strengthening the foundation for a climate responsive agricultural sector in the Caribbean	
1.6 Type of Readiness support sought	<input checked="" type="checkbox"/> I. Capacity building <input checked="" type="checkbox"/> II. Strategic frameworks <input type="checkbox"/> III. Adaptation planning <input checked="" type="checkbox"/> IV. Pipeline development <input checked="" type="checkbox"/> V. Knowledge sharing and learning	
1.7 Brief summary of the request	<p>Three of the top 10 countries facing the highest level of climate risk globally are located in the Caribbean Region. This region comprises Small Island and Low-Lying Coastal developing states (SIDS) that are particularly vulnerable to the effects of climate change and variability. Owing to its high dependency on natural system resources and multifunctional role in socioeconomic development, the agriculture sector has been identified as one of the most vulnerable sectors to climate change in Caribbean SIDS. Despite this, the agriculture sector has not been meaningfully prioritized in climate finance programming and processes related to Nationally Determined Contributions (NDCs). In light of projections of increasing frequency of extreme climatic events and pandemic threats such as COVID-19, opportunities for climate resilient agriculture to enhance food security and rural livelihoods while reducing GHG emissions, as part of the Agriculture Forestry and other Land Use (AFOLU) category, are increasing in importance. Though useful, past regional multi-sectoral initiatives have not resulted in the development of a more programmatic and iterative approach to raise the profile of agriculture for accessing GCF resources and other international sources of climate finance. Moreover, current GCF-funded activities on agriculture are national in scope and limited to a few activity areas that may not holistically address common sectoral challenges in the region or capitalize on opportunities to accelerate action through South-South exchange. The specific challenges and existing gaps relate to the limited capacity of the agricultural sector to identify, compile and manage data and information on needs, practices and technologies to catalyze low-emission and climate resilient agriculture investments. This, combined with weak linkages to other sectors, limits the agricultural sector's access to international climate finance necessary for building resilience and promoting low-carbon development.</p> <p>The current readiness request, targeting nine countries in the CARICOM sub-region (The Bahamas, Belize, Dominica, Haiti, St. Kitts and Nevis, St. Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago) posits that the profile of the agricultural sector in GCF's climate financing prioritization processes can be raised by increasing awareness of the sector's potential contribution to climate solutions, identifying promising practices and technologies to enhance resilience, and quantifying its contribution to GHG reductions. This is viewed as a foundational part of an evidence-based and inter-sectoral strategy for developing and rebranding</p>	

Caribbean agriculture as “low-emissions”, to enhance market opportunities and attract private sector investments. More specifically, the objectives of the request are to:

a) improve the enabling conditions to design, implement and evaluate options for enhanced climate action in the agricultural sector by strengthening policies, capacities, frameworks, methods and institutional arrangements for the collection, monitoring, measuring, reporting, verifying (MRV) and analysing agricultural and associated activity data¹ from the sector (Outcomes 1.3 & 2.2).

b) increase the number of projects identified for development and investment in a pipeline of evidenced-based and bankable projects aligned with regional and national priorities as informed by climate risk assessments of the agriculture sector (Outcome 4.1).

c) disseminate best practices for institutional capacity building, coordination and pipeline development of more robust proposals for building climate-resilience along prioritized agricultural value chains in the Caribbean region, with a focus on cultivating the innovative capacity of the region’s youth (Outcome 5.1).

Successfully realizing these key objectives will strengthen the foundation for climate responsive (adaptation and mitigation) agriculture in the Caribbean as an approach for building more resilient food systems. The main beneficiaries of the readiness activities include civil, public and private entities including the NDAs of participating countries, government ministries (agriculture/fisheries/land, planning/development and finance, the environment, statistics), farmers and non-governmental organizations, financial institutions, and agricultural technicians, entrepreneurs and advocates including youth.

1.8 Total requested amount and currency	USD 1,199,943	1.9 Implementation period	24 months
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1.10 Is this request a multiple-year strategic Readiness implementation request?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No -
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1.11 Complementarity and coherence of existing readiness support	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <p>Each of the 9 participating countries have received previous GCF readiness support, including adaptation planning, that may complement the activities proposed under the IICA-led regional readiness project.</p> <p>In particular, the current request focuses on translating the lessons learnt and approaches to increase climate action in the agriculture sector and addressing sector specific gaps and peculiarities that these initial readiness proposals highlighted. Section 2 further elaborates on the specific linkages between the IICA request and that of previous support delivered in each of the participating countries.</p>
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2. SITUATION ANALYSIS

¹ In this proposal, activity data refers to the data associated with an activity (in this case related to the agricultural sector) that generates GHG emissions, which is collected in physical units then combined with an emissions factor to calculate emissions.

General context and climate financing in the Caribbean

The Caribbean region comprises Small Island and Low-Lying Coastal developing states (SIDS) that are highly diverse and vulnerable to the effects of climate change and variability. According to UNDP reports, the vulnerability of the Caribbean region to multiple climate-related hazards, are often exacerbated by its geology, tectonic setting, location and topography, as well as their “...poor land use and environmental management practices (UNDP 2011). As such, countries in this region incur considerable costs to cope with and adapt to climate impacts, which often exceeds their financial capacity. Estimates of the economic impact of climate change for Caribbean SIDS are generally higher than world average (>5% of GDP/year), with costs projected to surpass US\$ 22billion per year by 2050. This will account for approximately 10% of the current size of the Caribbean economy if adaptation measures are not successfully implemented (Atteridge et al. 2017). On average, the economic impact of hurricanes (1950-2014, 200 hurricanes) accounts for an estimated 2.5% of GDP each year (Acevedo 2016). However, in some cases, damages and losses from a single climate-related extreme event, such as Hurricane Maria in Dominica in 2017, can amount to greater than 100% of the GDP of the country (Government of the Commonwealth of Dominica 2017).

For these reasons, many Caribbean SIDS depend on external financial support to supplement the expenditures of national and local governments, which often have weak or volatile finances (i.e., high levels of public debt and low economic growth rates). This international support is likely to remain critical in efforts to build resilience to climate change and invest in low-carbon development in the Caribbean. It is within this context and agreement of developed countries to mobilize US\$ 100billion per year in climate finance to help developing countries tackle climate change that the Green Climate Fund, being the global platform for accessing these resources (Green Climate Fund 2016), has become relevant in the developmental paradigm of the region. Unfortunately, given that adaptation needs far exceed the expected finance flows (UNEP 2016), there is considerable competition to access finance among and within countries. Regional initiatives must thus play a key role moving forward.

Though the level of severity may differ across and within countries (across sectors), regionally, lack of finance, limited technical capacity/resources, data, knowledge and inadequate policy/legislation and regulation have been identified as the major, common barriers for enhancing climate change adaptation (Figure 1) (Robinson 2018). This has been further supported by a GCF study entitled “Climate Change Adaptation in the Caribbean”, which noted that: i. data gaps are substantial and work with local stakeholders is needed to structure and analyse all relevant data at a greater resolution ii. a knowledge framework for many areas of climate change adaptation has not been well-established iii. information on investment options and priorities is still being developed and public adaptation platform is needed to facilitate discussion and raise awareness on the need to invest in adaptation measures between industry, government and other national stakeholders. These barriers are premised on a vision of evidence-based decision-making to inform project portfolio development to address changing rainfall patterns, tropical cyclones and other extreme events, sea-level rise, and rising air and sea surface temperatures which threaten all the countries, despite minor differences in climate risk profiles (Nurse et al. 2014).

No.	Adaptation Limit	Total Counts
1	Finance e.g. government expenditure	31
2	Technical capacity/resources	21
3	Data/records	16
4	Natural resources/features (availability of/dependence on)	13
5	Human resources/manpower/turnover	12
6	Knowledge/understanding (of climate effects; gained through research) and expertise	10
7	National focus/policy/legislation and regulations	8
8	Monitoring and evaluation/enforcement capacity	7
9	Size (including population)	6
10	Public education (including formal), awareness, knowledge, 'ownership'	6

Figure 1. Barriers to climate change adaptation in Caribbean SIDS
Source: Robinson (2018)

In this light, common risks, which are mainly related to hydrometeorological hazards, include flooding, drought, and degradation of soil (erosion), water scarcity and coral reef bleaching and damage. All of these significantly impact or are impacted by agriculture, fishing, and tourism, which are vital to the economies of many islands. Despite this direct relationship between these common risks and key industries or sectors such as agriculture, there has been limited efforts and success in accessing climate financing for building resilience in these sectors in Caribbean countries (Figure 2).

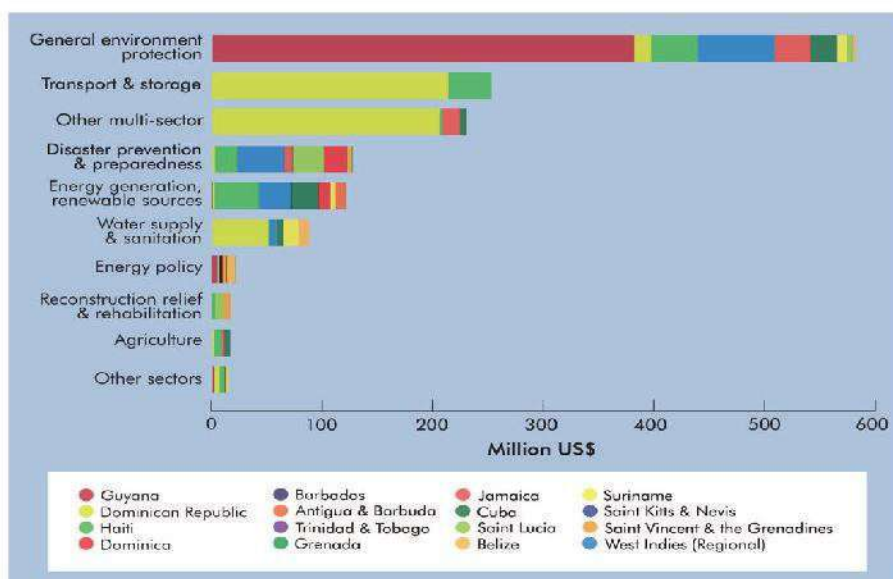


Figure 2: Distribution of climate finance by sector
Source: Atteridge et al. (2017)

This is partly due to some funding agencies having a relatively narrow interpretation of how climate finance can be spent, making it difficult for countries to align climate funding with development and sectoral priorities. Achieving this will require a rethinking of what “adaptation” means to the funders to address gaps in implementing country adaptation strategies (Atteridge et al. 2017). Further to this, in a recently published “learning paper” on GCF Readiness efforts in the Caribbean, it was reported that there is limited representation and engagement of non-governmental stakeholders (private sector, women’s associations and indigenous people) in designing, financing and implementation phases of GCF projects and programmes (Fayolle 2020). This argument is equally valid for Civil Society Organizations, for which an approved GCF-Readiness Project for “Enhancing Caribbean Civil Society’s Access and Readiness for Climate Finance” is being implemented by CANARI, and for the agriculture sector, for which such an intervention is still pending. This is particularly so, since concerns about transparency and partiality in designing and implementing no-objection procedures (GCF 2014) to funding proposals according to country’s capacities, existing processes and institutional set-up were raised in a report on lessons learnt with GCF readiness proposals in the Caribbean (Fayolle 2020). The limited precedent of good practice in this area coupled with the weak agricultural expertise within NDAs and/ or accredited entities (which tend to have strong expertise in water, energy and transport), as well as the negative social and environmental stigma about sectors such as agriculture, often results in inequitable focus among sectors.

For these reasons, recommendations were made to strengthen the human capacity, particularly new skills and expertise within Caribbean NDAs, to make swifter and more inclusive decisions and capture and disseminate best practices and lessons learnt on procedures and country programming (Fayolle 2020). Such actions will assist in developing engagement guidelines and strategies, which can be included in the toolkits of Caribbean NDAs and accredited entities to help address the inequity in climate financing across sectors. This is particularly important for sectors or sub-sectors, which may have a greater potential to sequester carbon, however, have low capacity or specific activity, baseline or coherent data to formulate evidence-based climate rationale for project or programme development. Such has been the case of the agriculture sector, which as part of the AFOLU group, has not been the focus of the aforementioned GCF approved projects in the Caribbean, which focused on power, water, telecommunication, environmental/natural resource management. The extent of this inequitable focus is evident in a study on “Climate finance in the Caribbean region’s Small Island Developing States” in 2017, which reported that agriculture received the least climate financing from 2000-2015 (Figure 2). This inequitable focus and need to raise the profile of agriculture in climate financing processes and programming was further highlighted in a regional workshop on “Climate Finance and support mechanism for a resilient Agriculture sector in the Caribbean” held in Barbados in October, 2019, with regional and international expert and non-expert agricultural stakeholders including personnel from GCF, NDAs and GCF-accredited entities. To date, the majority of climate financing has been allocated to general environmental protection (environmental policy and administrative management), mainly to Guyana from Norway for forest protection. The transport and storage sector received the second largest allocation of climate financing, mainly to Dominican Republic from France. Based on the multifunctional role of agriculture, the sector has enormous socio-economic potential to increase the capacity of high-risk and/or rural communities to mitigate and adapt to climate change by building climate resilience (short-medium-long- term) and enhancing livelihoods.

Regional Agriculture Performance and Outlook: socio-economic baseline and development

The agriculture sector in the CARICOM region makes an important contribution – over 5% - to the GDP in 7 countries (Belize, Grenada, Dominica, Haiti, Jamaica, Saint Vincent and the Grenadines, and Suriname) (Table 1). The other economies are largely service oriented, with the exception of Trinidad and Tobago which is primarily energy-based. In Dominica and Jamaica, the agriculture sector registered an annual growth rate of 9.3% and 12.8% respectively.

Table 1. CARICOM comparison of selected indicators

Indicator/Country	Antigua and Barbuda	The Bahamas	Barbados	Belize	Dominica
Agricultural land (% of land area)	20.45	1.40	23.26	7.01	33.33
Agriculture, forestry, and fishing, value added (% of GDP)	1.57	0.87	nd	10.42	16.27
Agriculture, forestry, and fishing, value added (annual % growth)	3.74	5.19	-2.05	-21.66	9.31
Employment in agriculture (% of total employment)	nd	2.67	2.86	15.05	nd
Food production index (2004-2006 = 100)	69.89	130.89	85.02	94.19	110.45
Indicator/Country	Grenada	Haiti	Jamaica	St. Kitts and Nevis	St. Lucia
Agricultural land (% of land area)	23.53	66.75	41.00	23.08	17.38
Agriculture, forestry, and fishing, value added (% of GDP)	6.21	17.87	6.60	0.91	2.26
Agriculture, forestry, and fishing, value added (annual % growth)	-10.53	3.07	12.87	-8.75	2.39
Employment in agriculture (% of total employment)	nd	49.80	16.63	..	10.20
Food production index (2004-2006 = 100)	128.01	157.13	105.58	39.12	64.41
Indicator/Country	St. Vincent & the Grenadines	Suriname	Trinidad & Tobago		
Agriculture, forestry, and fishing, value added (% of GDP)	25.64	0.56	10.53		
Agriculture, forestry, and fishing, value added (annual % growth)	6.88	9.88	1.13		
Agricultural land (% of land area)	6.49	1.04	-7.30		
Employment in agriculture (% of total employment)	13.81	7.22	3.24		
Food production index (2004-2006 = 100)	103.62	156.91	96.14		

Source: World Bank Stats (2016)

In many countries, such as Belize, Haiti, Jamaica, Saint Lucia, Saint Vincent and the Grenadines, the agriculture sector is a key source of livelihoods, contributing over 10% of total employment and significantly more through informal employment. Agriculture represents over 15% of land use in 9 (Antigua and Barbuda, Barbados, Grenada, Dominica, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and The Grenadines) of the countries listed in Table 2, reaching a high of 66% in Haiti. In addition, the production of food crops that are considered edible and that contain nutrients increased in 7 (The Bahamas, Grenada, Dominica, Haiti, Jamaica, Saint Vincent and the Grenadines, and Suriname) of 13 countries. Despite the contributions of agriculture, the Caribbean has a high food import bill (estimated US\$4.75 billion) which is expected to increase to US\$ 8-10 billion by 2020, if the current trends continue (Forbes 2019). Given extremely high food import bills, agricultural development is fundamental to increasing food and nutrition security, and to poverty reduction, especially in rural areas that are not linked to the financial services or tourism sectors. The major policy challenge for addressing problems in building resilience in the Agricultural sector, is how to transform risk-averse and resource-deficient farmers into efficient and competitive entrepreneurs, if agriculture is to operate as the true engine of economic growth and social stability in the Caribbean region.

The ability of the sector to make these vital contributions to food security and livelihoods is threatened by its high level of vulnerability to climate change. This vulnerability is increasing as well as the growing pressure climate change and other factors are placing on the natural resource base (especially water and soil) on which agriculture depends. As can be seen in Table 2, the NDCs of 13 CARICOM countries include the sector as key for adaptation and include general lines of action. The sector is also prioritized in many national adaptation plans. Therefore, the foundation for enhancing agricultural resilience to climate change and facilitating its low carbon development must be strengthened to enable the sector to more fully contribute to the regions development. Currently, the sector's critical challenge relates to its limited access to climate finance to help address climate risks. This is due to a disperse and incomplete information base, awareness and capacity gaps in both the public and private sector, weak sectoral participation in national climate prioritization processes, and the lack of a bankable project pipeline. The average age of workers in agriculture is 55 years and increasing, and there is also a challenge with youth starting and continuing their careers or livelihood activities in agriculture. This has negatively affected the revival of the sector, particularly as it relates to building climate resilient production systems or food value chains. Currently, in the CARICOM region to connect and empower youth in agriculture, Youth Development Action Plan (CYDAP) is the principal CARICOM strategy that provides guidelines for interventions that will create decent jobs, enhance social protection, strengthen skills for employment and entrepreneurship, and promote active

participation in the labour market. While there has been a focus on supporting youth in agribusiness, there is still a need for connect and empower youth in agriculture, develop skills and competencies and provide equitable access to productive, financial resources and decision-making for managing climate risks in agriculture (FAO 2019). In summary, youth are interested but not necessarily competent in systematically addressing climate issues in the agriculture sector. Therefore, deliberate & certified skills and competency building structures/interventions that are accessible outside mainstream education systems such as universities are needed to build the professional skill & earning potential level of youth interested or engaged in addressing climate issues in agriculture and related sectors.

One broad strategy to address these challenges is to evaluate the effectiveness of current coordination mechanisms at the national level for engaging and supporting agriculture stakeholders' input into GCF programming and broader climate change decision-making processes. This will help address the deficiencies in current processes described above and will provide the GCF NDAs as well as leaders of NAP and low emission development processes with recommendations on how to strengthen their process to be more inclusive of the agriculture sector in particular.

Another barrier to effective climate action in agriculture reflects the fact that data, information and studies linked to climate risks and response in the Caribbean agriculture sector are disperse, making it difficult and time consuming for actors to access the information they need and to easily see what other countries have. While there are climate change portals for the Caribbean, such as the 5Cs Clearinghouse, there is currently a lack of a user-friendly space for agriculture and climate change related information for the region. Historically, agricultural, meteorological, and hydrological data sets exists in several different organizations, in various formats, data and time frames.

To be able to move forward with the identification and implementation of concrete measures to enhance sectoral resilience as prioritized in the NDCs and existing sectoral adaptation plans for the CARICOM region, efforts are necessary to organize and strengthen the evidence base in a manner that will more effectively direct and mobilize both the public and private investments needed. Currently, within the Caribbean, **the agricultural sector's main challenges relate to limited capacity to identify, compile, and manage data and information on needs, practices and technologies to enhance low-emission and climate resilient agriculture investments. This, combined with weak linkages to other sectors, limits the agricultural sector's access to the climate finance necessary for building resilience and promoting low-carbon development, and achieving national and international climate commitments.**

Although the agricultural sector can be a significant contributor – more than 20% - of greenhouse gases in several countries (i.e. Belize, Haiti, and Suriname) in the CARICOM region (see Table 3), the sector is not currently a focus of national mitigation efforts linked to the Paris Climate Agreement. Improved activity and emissions data and information is required to ensure the sector develops along a low emissions pathway and can capitalize on the opportunities this brings (including efficiency and increased market competitiveness), and to enable the sector to support other sectors, such as tourism, waste management and energy, to advance their mitigation goals.

In addition, many of the measures documented in peer reviewed literature to enhance resilience in the sector also provide mitigation benefits and being able to measure and report these reductions is key to empowering these islands to report them. These measures include improvement of crop and grazing land management, the restoration of soils and degraded lands, the improvement of water management, land use change, and agroforestry, as well as improved livestock management. The IPCC AR5 Climate Change Mitigation Report discusses the socio-economic, institutional, ecological and technological barriers that affect the deployment of the adaptation and mitigation option in agriculture, forestry and other land use (AFOLU). The Caribbean is not exempt from these types of barriers that restrict the development of climate change actions in agriculture, where **the agricultural sector experiences weak capacity, undeveloped frameworks, limited participation of the private sector, and the lack of information exchange.** Increasing – and accounting for - the contributions the sector makes to emissions reductions will require more context appropriate MRV protocols and increased activity data. It will also require strategic private sector investment in the agriculture sector. However, the perceived high risks associated with environmental, biological and socio-economic factors have limited large-scale investment in the agricultural sector, particularly at the postproduction enterprises. This, coupled with a lack of rigorous financial track record and data for assessing the performance of agricultural related businesses or evaluating investment potential for scaling-up, continue to limit private sector investments in agricultural sector. However, there has been renewed interest to invest in agriculture and greening products and services, particularly from large-scale food retailers, such as supermarket and also hoteliers. These business entities are interested and engaged in marketing opportunities for low-carbon emission, pesticides and fertilizer products, as well as circular business models involving divergence of waste from landfills and its transformation into agricultural products. These interests are driven by the increasing trend of ethical consumerism, where consumers are demanding healthier and safe-foods with information on the process used to produce goods and services. In that light, there is a greater focus on marketing and incentivizing farmers for enhancing ecosystem services and implementing

good agricultural practices during production. There is also interests in integrating natural capital accounting into business models at the production and postproduction level. At the postproduction level, small and medium-sized businesses are also interested in leveraging or incorporating climate change issues into value and marketing systems for their agricultural commodities. Such initiatives are undoubtedly increasing given the COVID-19 pandemic and its impacts on food availability.

Greening the Economic Recovery from COVID-19 in the Agriculture Sector

Emissions reductions caused by economic downturns tend to be temporary — and can lead to emissions growth as economies attempt to get back on track. After the global financial crisis of 2008, for example, global CO₂ emissions from fossil fuel combustion and cement production grew 5.9% in 2010, more than offsetting the 1.4% decrease in 2009.

With the COVID-19 pandemic triggering a global economic slowdown, governments are already exploring ways to stimulate their countries' economies. The approaches they take to stimulate economic growth will have long-lasting effects on pathways towards low emissions climate resilient development. Recovery from this health and economic crisis must not exacerbate the climate crisis. Stimulus packages that promote continued dependence on fossil fuels, polluting, inefficient, high-carbon and unsustainable development will only exacerbate the challenges countries face. These stimulus packages must be used as an opportunity to accelerate the necessary shift to low-carbon and increasingly affordable energy systems that will bring long-term economic benefits. Therefore, strengthening the evidence-base in the agriculture sector, is a first step towards unlocking opportunities that catalyze the sector's contribution as a solution to the climate crisis rather than a contributor. IICA will seek to ensure alignment between the deliverables of this readiness request and the goals and actions set by countries for a climate resilient recovery in the agricultural sector, designing the deliverables – in particular, the project pipeline and concept notes, in a way that contributes to these goals. This is especially important for the agriculture sector as it has more limited capacity to identify, compile and share information on innovations for farmers and others in the agri-food sector, and crowd in financing to implement them throughout the value chain.

Importance of a Regional Approach:

The CARICOM region is already anchored by a robust and common agricultural policy framework. Clearly, a common approach that builds on the comparative advantage of individual Member States will improve availability, accessibility and affordability of food, especially for the most vulnerable. However, a consideration of paramount importance in support of a regional approach and policy response for food and nutrition security is that it will enable Member States to secure for their private and public sectors as well as for households and communities throughout the region, benefits and economic externalities that they would be unable to access acting in isolation, and at a lower cost than they would otherwise face.

The Common Agricultural Policy recognises that Regional production integration, cooperation and cross border investments are necessary for agricultural development in CARICOM. Hence, the policy promotes one regional space for production, processing, trade and investments. The policy also promotes actions that have a comparative advantage by being implemented at the regional level, rather than at the national level. The regional approach therefore ensures greater value added through collaborative actions by all Member States.

The CARICOM Regional Food and Nutrition Security Policy (RFNSP) articulates a shared vision (for the period 2011-2025) on the issues on which CARICOM Member States can effectively collaborate in areas until now not perceived as appropriate for collective regional action and not covered adequately and explicitly in the sector development policies for agriculture, health, infrastructure, trade etc. The regional policy provides a coherent, convergent and comprehensive framework within which national governments, civil society and private sector actors can join forces with regional organizations and development partners in cross-national, multi-sector and synergistic partnerships to identify, finance, implement and monitor an integrated set of concrete actions to achieve the four objectives of a) food availability; b) food access; c) proper food utilization for good health, nutrition and wellbeing; and d) stable and sustainable food supplies at all times.

Table 2. Topics included in Caribbean INDCs.

		Antigua & Barbuda	Bahamas	Barbados	Belize	Dominica	Grenada	Guyana	Haiti	Jamaica	St. Kitts & Nevis	St. Lucia	St. Vincent & the Grenadines	Suriname	Trinidad & Tobago
General Topics Mentioned	General vulnerability and importance of ag sector	X	X	X	X	X	X	X	X	X	X	X	X		
	Ag adaptation planning and measures already in progress			X	X		X			X			X		
	Support 1.5 degree C goal	X			X			X		X		X			
Subsectors mentioned	Agriculture	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Forestry	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Marine and Coastal Resources	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Freshwater	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Fisheries	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Support Needed	Livestock		X	X					X	X					
	Adaptation Finance needed	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Technical or other support needed	X	X	X	X	X		X	X	X	X	X	X	X	X
Priorities/ Adaptation Measures Included	Loss and Damage	X	X	X	X				X	X	X	X	X	X	X
	Restoration and conservation of forests		X		X	X	X	X	X		X	X	X	X	X
	Improve water use efficiency and water management				X	X	X	X	X		X	X	X	X	X
	EbA/ecosystem goods and services/environmental stewardship		X	X			X	X	X	X			X	X	X
	Renewable energy from biomass/biofuels		X	X	X		X	X	X					X	X
	Water harvesting and storage					X	X	X	X		X	X	X		
	Improved agro-climatic information and early warning systems					X	X	X	X		X				
	Improved on farm ag practices				X	X	X	X	X		X		X		
	Improve agricultural policies/strategies and their implementation; strengthen institutions		X				X		X				X		
	Sustainable Land Management (including improved soil management)					X	X		X			X		X	
	Desalination	X	X								X		X		
	Insurance	X				X		X	X						
	Improved varieties				X			X	X						
Irrigation				X						X	X				

Source: Intended Nationally Determined Contributions in the Caribbean: Where does agriculture fit?. IICA (2016)

Table 3. CARICOM Members Agriculture Emissions

Historical GHG Emissions by Country	Antigua and Barbuda	The Bahamas	Barbados	Belize	Dominica
Subsector Agriculture GHG Emissions (ktCO ₂ e)	23.80	28.90	53.90	350.70	36.50
Total GHG Emissions Excluding LUCF (MtCO ₂ e)	1.37	3.47	4.34	1.41	0.27
Agriculture as % of Total GHG Emissions	1.73%	0.83%	1.24%	27.64%	13.68%
Indicator/Country	Grenada	Haiti	Jamaica	St. Kitts and Nevis	St. Lucia
Subsector Agriculture GHG Emissions (ktCO ₂ e)	15.80	4437.10	584.70	8.50	40.20
Total GHG Emissions Excluding LUCF (MtCO ₂ e)	2.32	9.90	9.08	0.36	0.78
Agriculture as % of Total GHG Emissions	0.68%	44.82%	6.44%	2.38%	5.18%
Indicator/Country	St. Vincent & Grenadines	Suriname	Trinidad & Tobago		
Subsector Agriculture GHG Emissions (ktCO ₂ e)	15.10	741.10	297.00		
Total GHG Emissions Excluding LUCF (MtCO ₂ e)	0.31	3.71	26.42		
Agriculture as % of Total GHG Emissions	4.87%	19.98%	1.12%		

Source: CAIT Climate Data Explorer (2016)

Considering the existing regional approach to addressing common issues, an urgent and coherent response to the covid-19 pandemic coupled with enhancing climate ambition and resilience in the agriculture sector is necessary. The current readiness request with IICA will take advantage of the robust policy framework at the regional level, in order strengthen the capacities within the agriculture sector to fully realise its potential as a solution in climate action.

Finally, the limited timeframe the world has to address climate change effectively, and limited resources available to do so, combined with and similarities in climate risks facing the Caribbean agriculture sector, south- south and regional cooperation is necessary to make the most efficient use of resources and accelerate actions through knowledge sharing and learning from others, as well as joint efforts.

Overview of the Readiness Project

The current readiness request contributes to overcoming challenges in the agricultural sector by the expressed common interest of CARICOM members agreeing to combine readiness resources and work together on prioritized regional actions that will contribute to the improvement of farmers' livelihoods while reducing emissions where possible and appropriate. This project will also help raise awareness of the key role of agriculture in climate solutions.

The central aim of this project is to strengthen the foundation on which the region's agriculture sector prioritizes investments for resilience and enhance conditions for improved reporting on greenhouse gas emissions in specified agricultural value chains. The project will help to compile and assess existing legal, market, financial, and data gaps and barriers; and define measures to address them. A gender sensitive approach will be utilized. This barrier analysis, together with the promotion of more effective integration of agricultural stakeholders in national climate processes, especially those linked to the GCF, and international climate processes (e.g.: the Koronivia Joint Work Program, Global Stocktake, etc.) will result in a more rapid incorporation of the agricultural sector into technical and financial mechanisms; thus enabling the development of a low-emission and climate resilient sustainable agriculture sector that contributes to national climate and development goals.

Several current readiness projects are in the process of developing mechanisms and processes on which this readiness proposal seeks to build on ensuring the active and informed participation of the agriculture sector in GCF processes –include: i) a project led by the NDA in Antigua and Barbuda to strengthen the country's programming process by identifying appropriate climate technologies and elaborating reports on climate vulnerability and risk for agriculture (crops, livestock, fisheries), or the identification of mechanisms for CSO/multi-stakeholder engagement in climate change decision making at regional and national levels with CANARI as the Delivery Partner; ii) the Limited direct access to financial resources to resolve impacts of climate change and lack of adaptation financing channelled through the private sector was addressed by the Jamaica NDA - Ministry of Economic Growth and Job Creation,; and iii) the CARICOM Development Fund's work with countries to achieve their Climate Change priorities by strengthening SMEs access to finance and encouraging the private sector to become a significant player, as well as to provide different financing options. Additionally, the Organisation of Eastern Caribbean States Commission implemented a grant addressing Common Barriers to Adaptation Action and Private Sector Engagement.

To complement and support the initiatives above, the readiness support proposed will be used to support capacity development in the agriculture sector of participating countries, (Objective 1); advancing strategic frameworks for agriculture (Objective 2), developing a pipeline of potential agriculture projects (Objective 4), and improving regional and national knowledge sharing and learning about climate resilient agriculture and low-emission agriculture (Objective 5). The following outcomes are proposed:

Outcome 1.3: Relevant country stakeholders (which may include executing entities, civil society organizations and private sector) have established adequate capacity, systems and networks to support the planning, programming and implementation of GCF-funded activities.

Anticipated Deliverables: Validated Assessment report on the effectiveness of NDAs current engagement and consultative processes of agriculture sector stakeholders in GCF and broader climate change programming at national and level in the Caribbean with a focus on gender and youth; validated guidelines for agriculture stakeholders' engagement with NDAs in GCF programming and broader decision-making processes with a focus on gender and youth; national climate and agriculture inventories published for each project country; one updatable virtual course on agriculture sectoral guideline and opportunities and strategies for enhancing the input and capacity of agricultural stakeholders in GCF programming and broader decision-making processes; national workshop and program reports including participants' list, stakeholder mapping, training materials, and a pre and post training survey;

Report on the 6 training programs on the use of methods and tools developed and applied in the project with pre and post training surveys; national level workshop report with participant list and pre-and post-perception survey

analysis; regional level workshop report summary of areas for potential regional cooperation to accelerate action, with participant list and pre-and post-perception survey and four regional webinars recorded

Outcome 2.2: GCF recipient countries have developed or enhanced strategic frameworks to address policy gaps, improve sectoral expertise, and enhance enabling environments for GCF programming in low-emission investment. Deliverable 2.2.1.1:

Anticipated Deliverables: National level profiles detailing implementation advances and challenges of agriculture components to date and how the sector is participating in the related processes; Regional synthesis (common goals, challenges, approaches) and recommendations guidelines for better including agriculture in the NDCs, increasing ambition and more specific targets, Case study report on the estimation of NDC co-benefits of agriculture actions (mitigation and adaptation) in the Caribbean; Validated National Action plans to improve activity data in GHG inventory for the agriculture sector, including workshop report; barrier analysis/needs assessment report

Outcome 4.1: An increase in the number of quality project concept notes developed and submitted.

Anticipated Deliverables: Project/programme investment pipeline (long-list) for Caribbean SIDS aligned with goals to promote green resilient recovery from Covid-19 in the agriculture sector. Consultation conducted, and report prepared (list of participants, and booklet on prioritized project ideas). Two concept notes developed and submitted to the GCF.

Outcome 5.1: Best practices with respect to institutional capacity building and coordination, direct access, and pipeline development are developed and disseminated to strengthen engagement by NDAs, DAES, and delivery partners with the GCF.

Anticipated Deliverables: Ten case studies on climate responsive agriculture development in the region; An open access knowledge management portal for climate and agriculture related information for the region Strategy and workplan to support a climate responsive agriculture capacity building for you in the Caribbean, including a roster of youth volunteers for engagement, Occupational Standards of Competence for Caribbean Vocational Qualifications (levels 1-3); 3 Level 1 courses tailored towards youth engagement in climate responsive agriculture

Table 4 shows the linkages of this regional readiness proposal with ongoing initiatives in the Caribbean

Table 4. Linkages with Ongoing Initiatives

Country/ Grant Reference	Delivery Partner/ Value	Status	Potential Linkages to IICA Regional Readiness Request
The Bahamas			
BHS-RS-001 Strengthening Bahamas' NDA and Developing its Country Programme	CCCCC \$300,000	Disbursed	BHS-RS-001 identified agriculture as a key vulnerable sector and its importance to ensuring food security in the Bahamas which has a high food import bill. The current proposal will build on this work by improve the ability of stakeholders to integrate the sectoral needs for climate change avoiding mal-adaptation and promoting alignment with NDCs.
BHS-RS-002 GCF Readiness and Preparatory Support in the Bahamas (Phase II)	CCCCC \$359,950	Disbursed	BHS-RS-002 seeks to develop an MRV system including a projection analysis of the investment needed to achieve the Bahamas' adaptation and mitigation priorities. This complements the current agriculture readiness which seeks to develop a barrier analysis on investment (including private sector investment) for the agriculture sector.

BHS-RS-003 CTCN - Strategic Framework	UNIDO-CTCN \$369,715	Disbursed	BHS-RS-003 is focused on the energy sector and in particular building the evidence base for the incorporation of renewables in the sector. Both BHS-RS-003 and the current IICA readiness seek to contribute to addressing the Bahamas' NDC where both agriculture and energy are identified as important sectors. Agriculture in the NDC is regarded as a key sector for adaptation for "survival of its people and alleviation of poverty".
BHS-RS-004 Building Blocks for Strengthening The Bahamas Country Programme	CCCCC \$951,903	Disbursed	BHS-RS-004 seeks to develop climate change data sets and national risk tools which will be critical for adaptation planning in the agriculture sector, in addition to updating the Country Programme (CP) for the Bahamas. The evidence base developed under BHS-RS-004 will provide important country specific information for strengthened projects including agriculture in the Bahamas' CP as well as for the concept note to be developed under this current readiness.
Belize			
BLZ-RS-001 NDA Strengthening + Country Programming	CCCCC \$300,000	Disbursed	BLZ-RS-001 set the foundation for future engagement with the GCF by engaging stakeholders and conducting capacity building including private sector. This current readiness with IICA continues capacity building of stakeholders including the Private Sector, notwithstanding a focus on the agriculture sector.
BLZ-RS-002 Building Capacity for direct access to Climate Finance	CCCCC \$355,365	Disbursed	BLZ-RS-002 seeks to inter alia, strengthen the Belize NCCC in its mandate to support the NDA in identifying GCF projects. This current IICA readiness which seeks to evaluate the effectiveness of coordination mechanisms and strengthen through capacity building areas for improvement with regard to the agriculture sector will continue the work which commenced under BLZ-RS-002
BLZ-RS-003 Capacity Building for PACT as a GCF National Direct Access Entity	PACT \$279,062	Disbursed	BLZ-RS-003 seeks to strengthen the capacity of Belize' DAE- Protected Areas Conservation Trust (PACT) whose work in conservation directly support farmers as key agriculture stakeholders. Under this current IICA readiness the agriculture sectoral guidelines for effective and efficient strategies to enhance the input and capacity of agricultural stakeholders on GCF programming is one of the key areas where the two programmes will support each other.

BLZ-RS-004 Readiness Support for Strengthening Belize Private Sector Access to Climate Finance	CDB \$297,537	In legal processing	BLZ-RS-004 seeks inter alia to conduct an assessment of barriers to private sector investment in low-carbon and climate resilient development with recommendations/roadmap to address the barriers. This process will compliment work under this current IICA readiness which seeks to conduct a barrier analysis and needs assessments of the enabling environment for developing evidence-based climate responsive agriculture that is more attractive for private sector investments. IICA and CDB will work closely together to avoid duplication of efforts.
BLZ-RS-005 Support for accreditation gap assessment and action plan to Development Finance Corporation (DFC) of Belize	PwC \$34,409	Disbursed	Seeks to provide DFC has been identified by Belize' NDA as a key partner for supporting the financing of climate smart interventions in the agriculture sector.
Dominica			
DMA-RS-001 GCF Readiness and Preparatory Support in Dominica	UNDP \$464,778	Disbursed	DMA-RS-001 had as part of its key activities the development of a CP aligned to the low Carbon Climate Resilient Development Strategy for Dominica. Agriculture is one of the priority sectors of the LCCRDS. The CP identified the agriculture sector in Dominica as a key vulnerable sector. As such the work to be undertaken under this IICA readiness will build on the work done though readiness 1 in strengthening the sector with capacity building for stakeholder and improving the evidence base in the sector to inform future resilience action.
DMA-RS-002 Adaptation Planning	DoE \$2,940,000	Disbursed	DMA-RS-002 seeks among other things to update validate and store baseline adaptation data. The work under this IICA readiness to support farmer groups on the importance of keeping data records to support stronger sectoral GHG inventories will complement the work being done under DMA-RS-002.
DMA-RS-003 The Economic Feasibility Analysis of a Geothermal Based Green Industrial Eco park in the Commonwealth of Dominica, and Geothermal Resources Mapping in the Northern geothermal zone in the region near the town of Portsmouth	NDA \$749,060	In legal processing	DMA-RS-003 in part seeks to identify barriers for access to finance by the Private Sector in Dominica. This current IICA readiness seeks to conduct a barrier analysis and needs assessments of the enabling environment for developing evidence-based climate responsive agriculture, thereby being complementary to the activities under DMA-RS-003.
Haiti			

HTI-RS-001 Green Climate Fund (GCF) Readiness Programme in Haiti	UNDP \$430,000	Disbursed	HTI-RS-001 sought to among other objectives to identify Haiti's key adaptation priorities towards the 2030 agenda for Haiti. Agriculture is one such priority. HTI-RS-001 also sought to engage stakeholders, provide training. This current IICA readiness builds on the work previously done under HTI-RS-001.
HTI-RS-002 Strategic Framework	UNDP \$350,000	Disbursed	HTI-RS-002 sought to inter alia assess barriers to private sector investments including agriculture. This current IICA readiness will utilize this existing work as baseline for the agriculture sector analysis to be conducted.
HTI-RS-003 Institutional Strengthening and Preparatory Support for the Republic of Haiti	CCCCC \$403,390	Disbursed	HTI-RS-003 seeks among other things to develop a knowledge management platform for information sharing related to climate risk including to assist with decision-making. The sectoral guidelines and other tools being developed under this current IICA readiness can contribute to the robustness of the platform developed under HTI-RS-003. As such, IICA and CCCCC will work collaboratively to ensure this.
HTI-RS-004 Integrating climate change risks into national development planning process in Haiti	UNDP \$2,856,957	Disbursed	HTI-RS-004 will be key information for the agriculture sector, with a view to producing vulnerability assessments and gaps identified and an action plan. This will be useful input for IICAs work on the country level assessments for the sector.
Saint Kitts and Nevis			
KNA-RS-002 GCF Readiness Proposal St. Kitts and Nevis for a National Development Plan, Revision of Urban Revitalization Plan and recruitment of Climate Finance Expert	CDB \$589,530	In legal processing	KNA-RS-002 seeks to inter alia prioritize adaptation and mitigation focus for the federation of SKN. This current IICA readiness will support this work by identifying the gaps and potential opportunities for the agriculture sector n SKN.
Saint Lucia			
LCA-RS-001 GCF Readiness and Preparatory Support in Saint Lucia	CCCCC \$375,100	Disbursed	Through the work conducted under LCA-RS-001, agriculture was identified as a priority sector for climate action. Additionally, the climate information to develop a climate profile analysis report was collected. The work to be undertaken through this IICA readiness will build on the work done under readiness 001 as well as can benefit from some of the readiness deliverables of LCA-RS-001.
Saint Vincent and the Grenadines			

VCT-RS-001 NDA Strengthening + Country Programming	NDA \$300,000	Disbursed	The CP for St. Vincent and the Grenadines developed under VCT-RS-001, identifies agriculture not only as a key emitting sector but a vulnerable yet critical sector for the economy of the island. The work undertaken through this IICA readiness will provide meaningful support for such an important sector.
VCT-RS-002 NDA Strengthening, Country Programming and Access to Climate Finance	CCCCC \$627,346	Disbursed	The work being done under VCT-RS-002 to support REDD+ activities will complement the work being propose through this IICA readiness and its contribution to GHG inventory work.
Suriname			
SUR-RS-001 Strengthening NDA through GCF Readiness and Preparatory Support Programme	CDB \$317,923	In legal processing	SUR-RS-001 seeks to establish a coordination mechanism that accounts for key stakeholders. Given the importance of agriculture for Suriname both from an emissions standpoint and a key economic sector, the work proposed by IICA thorough this current readiness on evaluation the effectiveness of engagement of agriculture stakeholder's for GCF and other climate change processes will support the work to be undertaken by CDB.
Trinidad and Tobago			
TTO-RS-001 Improving the monitoring system for climate change impacts on the agriculture sector in Trinidad and Tobago	FAO \$260,000	Disbursed	TTO-RS-001 proposes an in-depth engagement in the agriculture sector. Some of the work undertaken can be utilized as input for this IICA readiness for example the activity data collected under TTO-RS-001. However, this IICA readiness can provide support to the work undertaken through TTO-RS-001 by evaluating the effectiveness of current coordination mechanisms at the national level for engaging and supporting agriculture stakeholders' input into climate change processes.
TTO-RS-002 Strengthening Trinidad and Tobago's NDA and Developing its Country Programme	CCCCC \$662,306	Disbursed	TTO-RS-002 seeks to inter alia identify priority adaptation and mitigation pipeline and establish a national climate change committee. The work proposed under this IICA readiness will assist with validating the role and importance of the agriculture sector in both of these processes.

3. LOGICAL FRAMEWORK

Outcomes	Baseline	Targets	Outputs	Activities (brief description)	Deliverables
<p>Outcome 1.3: Relevant country stakeholders (which may include executing entities, civil society organizations and private sector) have established adequate capacity, systems and networks to support the planning, programming and implementation of GCF-funded activities.</p>	<p>Multi-stakeholder coordination mechanisms are in place to engage stakeholders but do not focus on agricultural actors. The awareness raising and capacity development processes needed to support agriculture sector stakeholders' participation in GCF programming and implementation</p>	<p>Agriculture stakeholders are fully engaged in GCF programming processes, supported by sector specific guidelines and capacity building programs.</p>	<p>Output 1.3.1: Processes and guidelines for engaging and informing agricultural stakeholders input in GCF programming and broader climate-related decision-making are developed, validated and adopted.</p>	<p>Activity 1.3.1.1: Evaluate the effectiveness of current NDA mechanisms for multi-stakeholder engagement to improve the inclusivity of agricultural stakeholders in GCF programming and broader climate-related decision-making at the regional and national level.</p> <p>This will be achieved through a regional study led by a stakeholder engagement consultant, supported by a gender/inclusion consultant [collaborating with local IICA technicians/office & coordinators] to identify strengths, gaps, nuances, and inconsistencies in multi-stakeholder engagement processes with a focus on integrating agricultural stakeholders with a gender and youth lens</p> <p>The targeted groups for this study will include the NDAs, AEs, leaders of NAP programs and low emission development</p>	<p>Deliverable 1.3.1.1: Validated Assessment report on the effectiveness of NDAs current engagement and consultative processes of agriculture sector stakeholders in GCF and broader climate change programming at national and regional level in the Caribbean with a focus on gender and youth.</p>

	processes are lacking. ²			<p>processes and agricultural stakeholders including the Caribbean Farmers Network (CaFAN), Caribbean Agribusiness Association (CABA), Caribbean Network of Rural Women Producers (CANROP), Caribbean Youth Network (CYEN), Caribbean Technical Vocational Education and Training (Caribbean-TVET), Caribbean Agricultural Extension Provider's Network CAEPNet), technicians, and policy makers.</p>	
				<p>Activity 1.3.1.2: Develop and validate sectoral guidelines for NDAs effective engagement with agricultural stakeholders in GCF's programming and broader decision-making processes based on deliverable 1.3.1.1</p> <p>The stakeholder engagement consultant will be responsible for executing this activity with inputs from gender and youth consultant and national consultants. This activity will be done to integrate these guidelines into NDA toolkits and</p>	<p>Deliverable 1.3.1.2: Validated guidelines for agriculture stakeholders' engagement with NDAs in GCF programming and broader decision-making processes with a focus on gender and youth.</p>

² Study being undertaken in the Readiness Project "Enhancing Caribbean Civil Society's Access and Readiness for Climate Finance" with CANARI as the delivery partner on the guidelines/mechanisms to enhance CSO/multi-stakeholder inputs into GCF country and entity programming. Additionally, multi-stakeholder coordination mechanisms for climate change exist and are active at the national level in four of the target countries, including Antigua and Barbuda, Belize, Grenada and Saint Lucia. However, neither the study or multi-stakeholder coordination mechanisms focus on agriculture stakeholders.

				to inform the policies and procedures of AEs in the Caribbean region.	
				<p>Activity 1.3.1.3: Develop or update national inventories on climate change and agricultural-related initiatives to inform the input and collaborative approach of agricultural stakeholders in GCF programming and broader decision-making processes.</p> <p>This activity will be led by the national coordinators with inputs from the CSA and policy consultants It will be undertaken early in the project with multisectoral groups of stakeholders to understand and leverage intersectoral actions for improving the profile of agricultural stakeholders in GCF programming and broader decision-making processes. The activity will also assist donors, development agencies, and other actors to better understand the landscape and the opportunities to fill gaps and channel resources effectively.</p>	<p>Deliverable 1.3.1.3: National climate and agriculture inventories published for each project country</p>
				<p>Activity 1.3.1.4: Prepare modules for a virtual course on the agriculture sectoral guidelines and opportunities and strategies for enhancing the input and capacity of agricultural</p>	<p>Deliverable 1.3.1.4: One updatable virtual course on agriculture sectoral guideline and opportunities and strategies for</p>

				<p>stakeholders in GCF programming and broader decision-making processes.</p> <p>This activity is linked to deliverables 1.3.1.1, 1.3.1.2, 1.3.1.3 and 2.2.1.1. It will be executed by a knowledge management firm with inputs from the stakeholder engagement and gender specialists. The content of the modules will be used in workshops in Activity 1.3.2.1 but is also meant to be accessible to a wider audience as a self-paced-stand-alone course.</p>	<p>enhancing the input and capacity of agricultural stakeholders in GCF programming and broader decision-making processes.</p>
			<p>Output 1.3.2: Training programs (5) developed and executed to build the competence of expert and non-expert agricultural stakeholders in engaging in GCF's programming processes and using analytical processes and evidence-based decision-making for developing a more climate</p>	<p>Activity 1.3.2.1.: Conduct national-level workshops on agriculture sectoral guidelines, opportunities and strategies for enhancing the input and capacity of agricultural stakeholders in GCF finance programming and broader climate change decision-making processes.</p> <p>One, 2-day national workshop will be held per country based on deliverables 1.3.1.1, 1.3.1.2, 1.3.1.3 and 2.2.1.1 with the key information from two deliverables will be covered per day). The workshops will also be used to validate national inventories on climate change and agricultural-related initiatives developed in Activity 1.3.1.3.</p>	<p>Deliverable 1.3.2.1: National workshop and program reports including participants' list, stakeholder mapping, training materials, and a pre and post training survey.</p>

			responsive agricultural sector.	<p>The specific focus of the following main activities (1.3.2.2 and 1.3.2.3) is to institutionalize climate-specific technical and organisational capacity in governmental and non-governmental organizations involved in agricultural development³. The first set of actions are to increase analytical skills of agricultural technicians to assess, formulate strategies, & design climate-specific measures, and monitoring, reporting and reviewing. The second set of actions focus more on the decision-makers or management level staff to create enabling environment to support & sustain technical activities, use evidence and information to design, champion and implement policies as well as to strengthen leadership and inter-organizational relationships for sustained climate action in the sector.</p> <p>Activity 1.3.2.2: Organise and deliver advanced-level training to public and private sector technicians to use the</p>	<p>Deliverable 1.3.2.2:</p> <p>i) Report on the 4 training programs for technicians on the use of methods and tools developed and applied in the project with pre and post training surveys</p>
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³ This is based principle and previous project experience, which showed found that merely having consultants execute technical actions or having the capacity to carry out technical activities (e.g., assessments, implement measures) does not ensure that the capacity to support climate-related action is institutionalized within an organization.

				<p>methodologies, tools and analyses in Output 2.2.1 for developing a more climate responsive agricultural sector. Specifically, this activity will include:</p> <p>(i) A regional virtual training program on multi-dimensional trade-off and co-benefit analysis for climate change measures in the Caribbean agriculture sector. This training is based on the analysis, methods and tools used in Activity 2.2.1.2. to estimate potential co-benefits and trade-offs using an AGMIP⁴ workflow.⁵</p> <p>ii) A regional virtual training program on GHG inventories in the AFOLU sector. This training is based on the analysis, methods and tools used in Activity 2.2.1.3 and informed by the Caribbean Cooperative MRV Hub⁶-Greenhouse Gas Management Institute.</p>	
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⁴ Agricultural Model Intercomparison and Improvement Project (AGMIP) is a major international collaborative and [scientific](#) effort to improve the state of agricultural [simulation/models](#) and to understand climate impacts on the agricultural sector, food security, and poverty at local, regional and global scales. <https://aqmip.org/wp-content/uploads/2020/02/NT-CC-Enhancing-Agricultural-Production-OkRespaldo.pdf>.

⁵ Activities 1.3.2.2i, ii, and iv are covered by consultant costs.

⁶ The Caribbean Cooperative MRV Hub is a project of the Greenhouse Gas Management Institute. The MRV Hub empowers English-speaking CARICOM countries to efficiently establish MRV systems, develop GHG inventories, mitigation assessments, and track NDCs

				<p>iii) National sensitization and capacity building workshops for local farmer group representatives and extension agents on the record keeping of agricultural and associated activity data to support stronger sectoral GHG inventories. This is linked to Activities 2.2.1.2, 2.2.1.3 and 2.2.1.4.</p> <p>iv) A regional virtual training workshop on barrier analysis and needs assessments based on methodologies, tools and analyses used in Activity 2.2.1.4⁷</p> <p>The specific areas for building technical capacity in Activity 1.3.2.3 are based on needs assessment information from previous GCF-Readiness Project and studies⁸.</p> <p>These workshops are kept separate as they are tailored to different types of technicians to permit more in-depth training and a specialist rather than a generalist approach. Technicians specializes in different areas can collectively work as part of a team or unit to support institutionalization</p>	
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⁷ Note that only consultant time has been budgeted for this activity, as IICA's virtual platforms will be used.

⁸ GCF Readiness project referenced: "Enhancing Caribbean Civil Society's Access and Readiness for Climate Finance" with CANARI, "Improving the monitoring system for climate change impacts on the agriculture sector in Trinidad and Tobago" (FAO) and "Improving Eastern Caribbean Engagement with the Green Climate Fund" (OECS secretariat). Scientific studies and technical reports referenced: [Rosenberg \(2020\)](#), [Foyelle \(2020\)](#) and [TNA \(2008\)](#).

				capacity, processes and systems.	
				<p>Activity 1.3.2.3 Organise and deliver training to public and private sector decision-makers and management staff to use evidence and information generated from the analyses in Output 2.2.1. to design and implement policies and create an enabling environment to support technical activities and inter-organizational relationships for sustaining climate action in the sector.</p> <p>Specifically, this activity will conduct:</p> <ul style="list-style-type: none"> I. a national level workshop with policy makers on mainstreaming tools, methods and analyses in output 2.2.1 for developing and implementing evidence-based climate policy for the agricultural sector. II. a regional level workshop for leaders in the agriculture sector to identify areas for regional cooperation to accelerate action on climate change in the agriculture sector. 	<p>Deliverable 1.3.2.3</p> <ul style="list-style-type: none"> i) National level workshop report with participant list and pre-and post-perception survey analysis ii) Regional level workshop report summary of areas for potential regional cooperation to accelerate action, with participant list and pre-and post-perception survey iii) four regional webinars recorded ⁹

⁹ Note this activity will be conducted using IICA's digital platforms and facilitated by IICA staff and will thus not require financial resources from the project.

				<p>III. a regional webinar (covering deliverables 2.2.1.1, 2.2.1.2, 2.2.1.3, and 2.2.1.4) open to the general public to discuss main results from activities executed under Output 2.2.1.</p>	
<p>Outcome 2.2: GCF recipient countries have developed or enhanced strategic frameworks to address policy gaps, improve sectoral expertise, and enhance enabling environments for GCF programming in low-emission investment.</p>	<p>Agriculture has been included in almost all of the NDCs in the CARICOM countries, however its position has yet to be refined and strengthened by systematic, evidence-based decision support tools.</p>	<p>Decision support tools (i.e. methodologies, tools, analyses, action plans) for evidence-based climate action and in the agricultural sector better position the sector in climate related processes linked to the GCF.</p>	<p>Output 2.2.1: Consolidated and validated data framework and workflow (i.e. methodologies, tools and analyses) for evidence-based positioning of the agricultural sector in climate related planning, targeting (NDCs) and GCF programming in low-emission, climate resilient investment.</p>	<p>Activity 2.2.1.1: Conduct a regional scoping study to take stock of how the agriculture sector is positioned in current NDCs in the Caribbean and develop guidelines for the creation of more ambitious and resilient agriculture-promoting NDCs.</p> <p>Specifically, the study will include country-level assessments for each CARICOM Member State to determine whether progress is on track for achieving current agriculture-focused NDC goals, to inform the global stocktake and NDC enhancement for future cycles (i.e. 2025). This includes a review of implemented and planned policies and actions to achieve current targets, including an analysis of how gender and youth issues are being addressed. The study will also include a review of the impacts of COVID-19 and economic</p>	<p>Deliverable 2.2.1.1:</p> <p>i. National level profiles detailing implementation advances and challenges of agriculture components to date and how the sector is participating in the related processes (covering information from Activity 2.2.1.1 and 4.1.1.1)</p> <p>ii. Regional synthesis (common goals, challenges, approaches) and recommendations guidelines for better including agriculture in the NDCs, increasing ambition and more specific targets. (covering information from Activity 2.2.1.1, 2.2.1.2, and 4.1.1.1)</p>

				<p>stimulus measures in the agriculture sector and how they might affect actions towards achievement of the NDC goals for the agricultural sector.</p>	
				<p>Activity 2.2.1.2: Estimate the agriculture co-benefits, trade-offs and synergies for adaptation and mitigation actions in current NDCs for Caribbean SIDS using representative farming systems to identify finance gaps and support needs.</p> <p>The analysis will provide science-based information on the co-benefits of agricultural adaptation & mitigation actions in countries' NDCs and demonstrate a stakeholder-driven multi-disciplinary methodology to assess climate change impacts on multiple-dimensions.</p>	<p>Deliverable 2.2.1.2: Case study report on the estimation of NDC co-benefits of agriculture actions (mitigation and adaptation) in the Caribbean.</p>
				<p>Activity 2.2.1.3: Develop and update national action plans for improving GHG inventories in agriculture for CARICOM member states.</p> <p>The assessment will also define the institutional and procedural arrangements for GHG data reporting & verification and QA/QC based on IPCC</p>	<p>Deliverable 2.2.1.3: Validated National Action plans to improve activity data in GHG inventory for the agriculture sector, including workshop report with a proposed common framework for data</p>

				<p>guidelines and propose a common framework for data collection and analysis across the region. This builds off the Trinidad readiness project on GHG monitoring in the agriculture sector to inform other country efforts.</p>	<p>collection and analysis across the region.</p>
				<p>Activity 2.2.1.4: Conduct a barrier analysis and needs assessments of the enabling environment for developing evidence-based climate responsive agriculture that is more attractive for private sector investments.</p> <p>The analysis will mainly focus on the gaps/barriers related to policy & regulatory frameworks, markets, economic data, etc. that limit the capacity for evidence-based decision-making and private sector investment in climate change responses in agriculture and linked sectors (e.g. tourism, health, water, transport, energy, health)</p> <p>This activity will provide inputs to the design of the private sector concept note.</p>	<p>Deliverable 2.2.1.4: Barrier analysis/needs assessment report</p>
<p>Outcome 4.1: An increase in the number of quality project concept</p>	<p>1 regional concept note on the agriculture</p>	<p>2 multi-country concept notes on the</p>	<p>Output 4.1.1: Two multi-country concept notes for</p>	<p>Activity 4.1.1.1: Based on the deliverables from output 2.2.1 identify and compile ideas for project pipeline development that</p>	<p>Deliverable 4.1.1.1: A report on project ideas for project pipeline development</p>

notes developed and submitted.	sector in the Caribbean ¹⁰	agriculture sector in the Caribbean designed and submitted to the GCF	strengthening climate resilience in the agricultural sector developed and submitted to GCF	aligns with public and private sector interests to invest in climate resilient recovery from Covid-19 in the agriculture sector.	that aligns with public and private sector interests to invest in climate resilient recovery from Covid-19 in the agriculture sector.
				<p>Activity 4.1.1.2: Conduct regional consultation with a private-public sector focus with key stakeholders to prioritize and validate the project pipeline based on opportunities and challenges identified in Output 2.2.1.</p> <p>This will take the form of a marketplace exhibition to assess and validate priority project ideas for funding under GCF. This consultative process will provide the opportunity to align the region's climate change agenda for the agriculture sector, with the economic recovery agenda in the context of COVID-19. Given that hydrometeorological hazards poses the greatest threat to agriculture sector, focus will be placed on</p>	<p>Deliverable 4.1.1.2: Consultation conducted, and report prepared (list of participants, and booklet on prioritized project ideas).</p>

¹⁰ To date, the only multi-country project agriculture related concept note is entitled "Enhancing Coastal Resilience Against Climate Change" for Antigua and Barbuda, Barbados, Belize, Grenada, Guyana, Jamaica, Saint Lucia, and St. Vincent and the Grenadines in 2016. There are 7 national project concept notes focused on the agriculture sector (1 Belize, 3 Haiti, 2 Dominican Republic and 1 Dominica)

				<p>water risk for agriculture and mobilizing private finance.</p> <p>It will include local financial institutions as well as financial sector policymakers in this exercise to understand how to increase access for agricultural MSMEs to local financing options, and to develop policies that promote local financing of agricultural projects, in addition to attracting international climate finance.</p>	
				<p>Activity 4.1.1.3: Development and submission of two concept notes aligned with countries' NDCs and GCF Country Programmes and informed by Activity 4.1.1.2 that promote climate resilient recovery. At least one multi-country concept note will focus on the private sector.</p>	<p>Deliverable 4.1.1.3: Two multi-country concept notes developed and submitted to the GCF.</p>
<p>Outcome 5.1: Best practices with respect to institutional capacity building and coordination, direct access, and pipeline development are</p>	<p>Agriculture and climate change information and best practices have not been compiled in manner that allows for adequate</p>	<p>A regional knowledge management portal focused on agriculture and climate change facilitates information access.</p>	<p>Output 5.1.1: Climate change and agriculture case studies and a knowledge management portal developed and readily accessible</p>	<p>Activity 5.1.1.1: Prepare ten case studies of on-farm and in-field good/climate responsive agricultural practices, effective tools / methods / systems/innovations/technologies and pilot projects across the region.</p>	<p>Deliverable 5.1.1.1: Ten case studies on climate responsive agriculture development in the region</p>

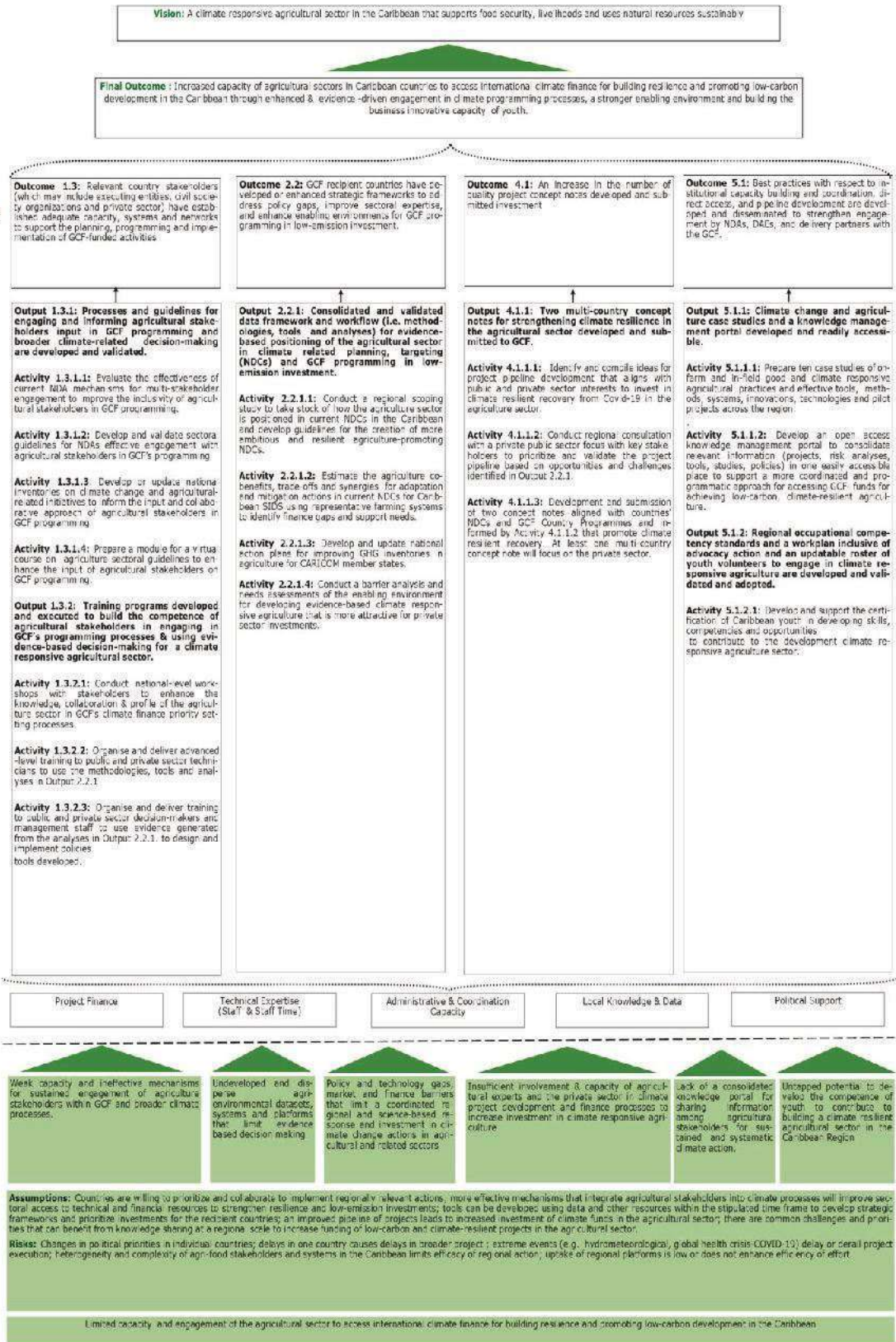
<p>developed and disseminated to strengthen engagement by NDAs, DAEs, and delivery partners with the GCF.</p>	<p>coordination or the development of a pipeline of projects to address climate change in the sector¹¹. Youth involvement in the sectoral climate response is low.</p>	<p>coordination and project development, allowing increased access to climate funding for the agricultural sector, and a new set of tools enhance youth engagement in creating a more climate responsive agriculture sector.</p>		<p>Cases will be selected to ensure a representation of a range of interventions (e.g.: practices, research, policy, information systems, capacity development) and stakeholders involved. Criteria used for selection will include: availability and quality of existing information/data to document, potential for scale or replication, 2 years or more of development or implementation, gender/youth focus, adaptation/mitigation synergies and transformational potential.</p>	
				<p>Activity 5.1.1.2: Develop an open access knowledge management portal to consolidate relevant information (projects, risk analyses, tools, studies, policies) in one easily accessible place to support a more coordinated and programmatic approach for accessing GCF- funds for achieving low-carbon, climate-resilient agriculture.</p>	<p>Deliverable 5.1.1.2: i) An open access knowledge management portal for climate and agriculture related information for the region</p>
			<p>Output 5.1.2: Regional occupational competency</p>	<p>Activity 5.1.2.1: Develop and support the certification of Caribbean youth in developing skills, competencies and</p>	<p>Deliverable 5.1.2.1 i. Strategy and workplan to support a climate responsive</p>

¹¹ A regional public-private platform to share and discuss climate investment opportunities and to capture and disseminate related information is identified as a deliverable under the Readiness Proposal entitled "Improving Eastern Caribbean Engagement with the Green Climate Fund" with OECS as the delivery partner.

			standards and a workplan inclusive of advocacy action and an updatable roster of youth volunteers to engage in climate responsive agriculture are developed, validated and adopted.	opportunities to contribute to the development climate responsive agriculture sector. This will be accomplished through collaboration with Caribbean Youth Environment Network (CYEN) ¹² and existing relationships with Technical and Vocational Education and Training (TVET-Caribbean) for developing certified regional-occupational standards ¹³ and assisting with the development of three level-1 courses related to these standards. Identified courses for development include: climate smart Agriculture 3D designing and construction, climate resilient agri-entrepreneurship and water management for climate resilient agri-food systems. The courses will be delivered by local experts and IICA specialists	agriculture capacity building for youth in the Caribbean, including a roster of youth volunteers for engagement ii Occupational Standards of Competence for Caribbean Vocational Qualifications (levels 1-3). iii. 3, Level 1 courses tailored towards youth engagement in climate responsive agriculture.
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¹² This builds on work done in Trinidad with CYEN under the GCF Readiness project “Enhancing Caribbean Civil Society’s Access and Readiness for Climate Finance” with CANARI.

¹³ detailed written descriptions of what an employee is expected to know and do in his/her work role.



Theory of Change Narrative

The project logic is premised on a vision of developing “A Climate responsive agricultural sector in the Caribbean by addressing the problem of limited capacity and engagement of the agricultural sector across the Caribbean to access international climate finance for building resilience and promoting low-carbon development. This vision is expressed in many of the regional and national developmental and agricultural strategic plans and is aligned to international agreements and commitments (e.g. the Paris Climate Agreement, NDCs and SDGs). Most notably, the vision has been proclaimed internationally by Prime Minister of Dominica through his commitment to making Dominica “the First Climate Resilient Nation in the World” and serving as a model to build resilience in Caribbean and other countries. Despite the formulation of National Adaptation plans and roadmaps and the establishment of agencies or units in the Caribbean with mandates to address climate change impacts, there have been gaps in building resilience across or within specific sectors, in particular, agriculture. Barriers limiting the access of agricultural sector to climate finance include ineffective mechanisms and engagement with agricultural experts and stakeholders in GCF climate programming processes, policy gaps, and limited or fragmented data/information to inform climate risks planning, programming and action in the sector. The core problem addressed by the project is the result of multiple barriers, each of which cannot be fully overcome by one set of activities or outputs alone, thus the dotted lines indicate the multiple outputs that will contribute to addressing each of the barriers identified.

The project seeks to address these barriers by focusing on the most relevant GCF outcomes to lay the groundwork necessary to spark a paradigm shift. This project will provide the foundation for increasing the capacity of the agricultural sector in the Caribbean countries to access the climate finance needed for building resilience and promoting low-carbon development. These include outcomes 1.3, 2.2, 4.1 and 5.1, which focus on stakeholders having adequate capacity & systems to support GCF-Funds programming processes as well as an enhanced enabling environment, sectoral expertise, a pipeline of high-quality concept notes and best practices for institutional capacity building and coordination to achieve the same.

These outcomes hinge on the main assumption that there will be sustained political will for countries to prioritize and implement regionally relevant actions that address common challenges of building climate-resilient agricultural sector in a low-high risks environment, which will exist during the life of the project. Moreover, effective mechanisms, tools and frameworks to enhance the engagement of agricultural stakeholders in climate planning processes will be established within a stipulated timeframe to prioritize actions and investments. Given that political support from regional and national organisations exists, is identified as major input, and will be strengthened through strategic project interventions, extreme events e.g. global health crisis, disasters, are the main risks that can delay or derail project execution. Mitigating these risks will require the involvement of all project partners to monitor the closely monitor situation in each country, adhere to emergency and disaster plans as well as reschedule activities and use virtual platforms and communication when possible.

On the supposition that risks are appropriately managed, the financial inputs of the donor as well as the inputs all project partners in the form of knowledge, technical expertise (staff and staff time) and administrative capacity will be used to undertake main activities related to:

1. Improving NDA processes and guidelines for effectively engaging agriculture stakeholders and building their capacity to provide evidence-based input in GCF-programming. These activities are directly related to addressing the barrier of “weak capacity and ineffective mechanisms for sustained engagement of agricultural stakeholders within GCF and broader climate processes.” The intervention logistics for these activities include an evaluation of the effectiveness of current NDA multi-stakeholder mechanisms with the aim of developing and implementing validated sectoral engagement guidelines. The development of national inventories on climate change and agricultural-related initiatives is seen as critical to understand the landscape for opportunities and better coordination, particularly as it relates to leveraging intersectoral actions for improving the profile and input of agricultural stakeholders in GCF programming and broader decision-making processes. Likewise, the subsequent development and delivery virtual course and training programs to improve the analytical and decision-making skills of technicians and policymaker/senior management is also seen as a critical step in addressing this barrier. These capacity building programs are mainly related to activities undertaken in Outputs 1.3.1. and 2.2.1.
2. Developing a consolidated and validated framework and workflows (i.e. methodologies and tools) evidence-based analyses to guide GCF investment towards a more climate responsive agriculture sector. These activities are directly related to addressing the barrier of “underdeveloped and disperse agri-environmental datasets, systems and platforms that limit evidence-based decision-making.” The activities are also related to the barrier “policy and technology gaps, market and finance barriers that limit a coordinated regional & science-based response and investment in climate change actions in the agricultural and related sectors.” As such, main intervention logistics for these activities include an execution of regional scoping study to take stock of how the agriculture sector is positioned in the current NDCs, the estimation of agricultural co-benefits, trade-offs and synergies for adaptation and mitigation actions and the development and updating of national actions plans for improving GHG inventories for agriculture for project countries. Barrier analysis (market, policy, regulatory frameworks etc.) and needs assessment of the enabling environment for developing evidence-based climate responsive agriculture sector is also undertaken.
3. Preparing climate change-agriculture case studies, a knowledge management portal, and occupational competency standards to support the dissemination of best practices and building skills of youth to support

climate action. These activities are directly related to addressing the barriers “lack of a consolidated knowledge portal for sharing information among agricultural stakeholders for sustained and systematic climate action”. The intervention logistics for these activities include preparation of climate change-agricultural case studies, which will serve to inform investments for scaling up and out successful initiatives by the private sector. It provides a critical first step to the approach for private sector engagement emphasized in Outcome 4.1, which is premised on investment risk reduction by the provision of evidence, pilots and proof of concept for scaling-up. The development of a knowledge platform is seen as essential to provide access to such information and related analyses that were captured in the preceding activities. Translating or using this knowledge to develop certified occupational competency standards that youth can access to build their skills through courses in climate smart agriculture and water management for climate resilient agri-food systems are seen as critical in addressing the barrier of “untapped potential to develop the competence of youth to contribute to building a climate resilient agricultural sector in the Caribbean Region”

4. Increasing the number of quality agricultural-focused project concept notes developed and submitted. These activities are directly related to addressing the barrier of “insufficient involvement and capacity of agricultural experts and the private sector in climate project development and finance processes investment.” The barrier analysis as well as the preparation of case studies activities executed under outcome 4.1 and 5.1, respectively, feed into the activity of identifying and compiling a pipeline of priority projects for climate resilient recovery in the agricultural sector. The objective will be to use these activities to inform and develop investor-market metrics (e.g. projected cost-earnings ratios, bottom-lines, cashflow) on scalable project ideas that can be presented or discussed with private sector during regional consultation with key stakeholders to identify opportunities for prioritizing project pipelines. This will also provide an opportunity for private sector, particularly large food retailers and hoteliers who are already interested and engaged in greening their products and services to further prioritize their areas of interest. In this light, the private sector engagement approach will focus on knowledge sharing and integrated working meetings activities with large food retailers/purchasers (supermarket chains and hoteliers) and small and medium-sized enterprises (SMSEs) along the agricultural food value chain.

Collectively, these activities and associated deliverables are to inform the development of two GCF Concept Notes focused on reducing vulnerability of agricultural sector to hydrometeorological hazards related to climate change and promoting private sector investment in marketing and financing opportunities related to low-carbon commodity branding and payment for ecosystem services and/or natural capital asset accounting. To this extent, the **Theory of Change Statement is:** “**IF** Caribbean countries recognize the key role of agriculture in the climate solutions and invest in compiling the necessary data and information to make informed decisions to guide the sectoral response to climate change **THEN** those countries will be able to design and execute effective agricultural programmes that are aligned with national and global climate and development priorities **BECAUSE** they will have the institutionalized priorities, needs, systems and processes in place to support coordinated investment in adaptation and mitigation.” The **Impact expected is that** “Member States of the Caribbean Community recognize the key role of agriculture for meeting their national and international (NDC, SDG) climate and sustainability commitments and are able to make effective investments to enhance their sectoral and national plans to achieve climate resilience and low emissions development.

5.3 Implementation Plan

		Estimated Timeline																							
Activities & Deliverables		M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24
Procurement																									
A1.3.1.1	D1.3.1.1																								
A1.3.1.2	D1.3.1.2																								
A1.3.1.3	D1.3.1.3																								
A1.3.1.4	D1.3.1.4																								
A.1.3.2.1	D1.3.2.1																								
A.1.3.2.2	D1.3.2.2																								
A.1.3.2.3	D1.3.2.3																								
A2.2.1.1	D2.2.1.1																								
A2.2.1.2	D2.2.1.2																								
A2.2.1.3	D2.2.1.3																								
A2.2.1.4	D2.2.1.4																								
A4.1.1.1	D4.1.1.1																								
A4.1.1.2	D4.1.1.2																								
A4.1.1.3	D4.1.1.3																								
A5.1.1.1	D5.1.1.1																								
A5.1.1.2	D5.1.1.2																								
A5.1.2.1	D5.1.2.1																								